WHAT IS CLAIMED IS:

~~CLAIMS~~

1. Process for suspending particles (1) of a solid in a predetermined volume (2) of liquid contained inside a container (3), starting with a deposit (4) which is made up of the said particles sedimented on the bottom (3a) of the said container and is immersed in the said volume of liquid, characterized in that a gas circuit (5) is set up in the container, partly in direct contact with the liquid (2), in a loop comprising at least two substantially parallel flows (5a, 5b) which are separated by a head loss (6) located level with the bottom (3a) of the container (3), and a gas stream travelling through the said container along the said gas circuit (5) is alternated.

2. Process according to Claim 1, characterized in that the gas circuit (5) enters or leaves the container through two openings (7, 8) for inlet or outlet of the two flows (5a, 5b) respectively, the openings being formed in the said container (3) and isolated from one another, and a positive pressure then a negative pressure is applied alternately through at least one said opening (7, 8).

3. Process according to Claim 1, characterized in that inert solid beads (9) are dispersed freely at the bottom (3a) of the container.

4. Process according to Claim 1, characterized in that the head loss (6) represents at least 10 mbar, and is preferably between 10 mbar and 500 mbar, and for example between 50 mbar and 200 mbar.

5. Process according to Claim 1, characterized in that the gas stream is alternated at a frequency at least equal to 3 Hz, and preferably between 4 and 25 Hz, for example between 5 and 10 Hz.

6. Device comprising a container (3) for holding a predetermined volume of liquid and particles (1) of a solid, which is designed for suspending the said particles starting with a deposit (4) which is made up

of the said particles sedimented on the bottom (3a) of the said container and is immersed in the said volume of liquid, characterized in that it comprises at least one conduit (10) which is arranged in the said container (3) and defines in the latter two chambers (11, 12) which communicate with one another through a passage (6) formed level with the bottom (3a) of the said container (3), and with the outside respectively by two openings (7, 8) at least, and a means of alternate pressurization which communicates with at least one said opening (7, 8) and is designed to set up a positive pressure then a negative pressure successively in the gas circuit (5) comprising the two chambers (11, 12) which communicate with one another.

7. Device according to Claim 1 characterized in that the conduit (10) is in the form of a tube which enters the container (3) as far as a lower level, forming at least one gap (6) with the bottom (3a) of the said container.

8. Device according to Claim 1, characterized in that the container (3) has a neck (3b) in which the upper end of the conduit (10) is arranged, with a functional gap defining an opening (7) to one (11) of the two chambers.

9. Device according to Claim 8, characterized in that the upper end of the conduit is closed off by a stopper (13) in which a passage (13a) defining an opening (8) to the other (12) of the two chambers is formed.